

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (previously presented) A synthetic apolipoprotein-E mimicking polypeptide comprising an amino acid sequence selected from the group of

(i) X-Y-Arg-Arg-Y-Y-X-X-Y-Y-Arg-Y-Y-Arg-X-Y-Y-X or the reverse sequence thereof,

(ii) Arg-Arg-Y-Y-X-X-Y-Y-Arg-Y-Y-Arg-X-Y or the reverse sequence thereof,

(iii) Y-Y-X-X-Y-Y-Arg-Y-Y-Arg-X-Y-Y-X or the reverse sequence thereof, and

(iv) X-Y-Arg-Arg-Y-Y-X-X-Y-Y-Arg-Y-Y-Arg or the reverse sequence thereof,

wherein X is glycine, threonine, serine or alanine,

wherein Y is a hydrophobic amino acid,

wherein the polypeptide comprises an acetyl group at the N-terminus and an amide group at the C-terminus, and

wherein the polypeptide consists of a single domain.

Claim 2 (previously presented) The polypeptide of claim 1, wherein Y is selected from the group consisting of phenylalanine, tyrosine, leucine, isoleucine, valine, and tryptophan.

Claim 3 (previously presented) The polypeptide of claim 1, wherein the polypeptide comprises from about 10 amino acids to about 30 amino acids in length.

Claim 4 (previously presented) The polypeptide of claim 1, wherein the polypeptide comprises a sequence of consecutive amino acids selected from the group of SEQ ID NOS:1-207.

Claim 5 (previously presented) The polypeptide of claim 1, wherein the polypeptide comprises the sequence Gly-Ile-Arg-Arg-Phe-Leu-Gly-Ser-Ile-Trp-Arg-Phe-Ile-Arg-Ala-Phe-Tyr-Gly (SEQ ID NO:5).

Claim 6 (previously presented) The polypeptide of claim 1, which is a recombinant polypeptide.

Claim 7 (previously presented) The polypeptide of claim 1, which is a synthetic polypeptide.

Claim 8 (previously presented) The polypeptide of claim 1, which is a peptidomimetic.

Claim 9 (currently amended) An isolated nucleic acid encoding the polypeptide of ~~any one~~
~~of claims 1 to 8.~~

Claim 10 (previously presented) The nucleic acid of claim 9, wherein the nucleic acid
comprises DNA, RNA and/or cDNA.

Claim 11 (previously presented) A vector comprising the nucleic acid of claim 9.

Claim 12 (previously presented) A host cell comprising the nucleic acid of claim 9.

Claim 13 (previously presented) The host cell of claim 12, which is eukaryotic or
prokaryotic.

Claim 14 (previously presented) The polypeptide of claim 1, wherein the polypeptide
enhances binding of low-density lipoprotein (LDL) or very low density lipoprotein (VLDL)
to a cell.

Claim 15 (previously presented) The polypeptide of claim 1, wherein the polypeptide
enhances degradation of low-density lipoprotein (LDL) or very low density lipoprotein
(VLDL) by a cell.

Claim 16 (currently amended) A composition comprising the polypeptide of ~~any one of~~
~~claims 1 to 8~~ and a pharmaceutically acceptable carrier.

Claim 17 (previously presented) The composition of claim 16, wherein the carrier comprises
dimyristoylphosphatidyl (DMPC), phosphate buffered saline or a multivesicular liposome.

Claim 18 (currently amended) A monoclonal antibody that specifically binds to the
polypeptide of ~~any one of claims 1 to 8.~~

Claim 19 (currently amended) A method for enhancing LDL binding to a cell, the method
comprising contacting the cell with the polypeptide of ~~any of claims 1 to 8.~~

Claim 20 (currently amended) A method for enhancing LDL and VLDL binding to a cell in a
subject, the method comprising administering the polypeptides of ~~any of claims 1 to 8,~~ or a

composition thereof, to the subject in an amount effective to increase LDL and VLDL binding to the cell of the subject.

Claim 21 (currently amended) A method for reducing serum cholesterol in a subject, the method comprising the step of administering to the subject an amount of the polypeptides of ~~any of claims 1 to 8~~, or a composition thereof, effective to increase binding of LDL and/or VLDL to cells in the subject, thereby reducing serum cholesterol in the subject.

Claim 22 (currently amended) A method for treating a subject with coronary artery disease, the method comprising the step of administering to the subject an amount of the polypeptides of ~~any of claims 1 to 8~~, or a composition thereof, to thereby treat the subject.

Claim 23 (currently amended) A method for treating a subject with dysbetalipoproteinemia, the method comprising the step of administering to the subject an amount of the polypeptide of ~~any of claims 1 to 8~~, or a composition thereof, to thereby treat the subject.

Claim 24 (currently amended) A method for reducing the risk of myocardial infarction in a subject, the method comprising the step of administering to the subject an amount of the polypeptide of ~~any of claims 1 to 8~~, or a composition thereof, to thereby treat the subject.

Claim 25 (currently amended) A method for treating atherosclerosis in a subject, the method comprising the step of administering to the subject the polypeptide of ~~any of claims 1 to 8~~, or a composition thereof.

Claim 26 (previously presented) A recombinant cell comprising the nucleic acid of claim 9.

Claim 27 (currently amended) A recombinant cell producing the polypeptide of ~~any one of claims 1 to 8~~.

Claim 28 (previously presented) A transgenic, non-human subject comprising the nucleic acid of claim 9.

Claim 29 (previously presented) The transgenic subject of claim 28, wherein the subject is an animal or a plant.

Claim 30 (currently amended) A transgenic non-human subject expressing the polypeptide of ~~any of claims 1 to 8~~.

Claim 31 (currently amended) The method of ~~any of claims 19 to 25~~, wherein the administration is oral, parenteral, by intramuscular injection, by intraperitoneal injection, transdermal, extracorporeal, topical, intranasal or by inhalant.

Claim 32 (currently amended) The method of ~~any of claims 19 to 25~~, wherein the subject is a human subject.

Claim 33 (currently amended) The method of ~~any of claims 19 to 25~~, wherein the subject is mammal is a mouse, a rat, a rabbit, a cow, a sheep, a pig, or a primate.

Claim 34 (previously presented) The method of claim 33, wherein the primate is a human, a monkey, an ape, a chimpanzee, or an orangutan.